

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SHAWS POND	Lake Area (ha): 25.09
Town: NEW DURHAM	Maximum depth (m): 4.9
County: Strafford	Mean depth (m): 3.0
River Basin: Merrimack	Volume (m ³): 761000
Latitude: 43°31'57" N	Relative depth: 0.9
Longitude: 71°08'25" W	Shore configuration: 1.63
Elevation (ft): 760	Areal water load (m/yr): 8.94
Shore length (m): 2900	Flushing rate (yr ⁻¹): 2.90
Watershed area (ha): 440.3	P retention coeff.: 0.57
% watershed ponded: 0.0	Lake type: natural w/dam

BIOLOGICAL:

27 January 2000

27 August 1999

DOM. PHYTOPLANKTON (% TOTAL)	#1	RHIZOLENIA 80%	DINOBRYON 55%
	#2	ASTERIONELLA 10%	TABELLARIA 25%
	#3		ASTERIONELLA 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			4.08
DOM. ZOOPLANKTON (% TOTAL)	#1	ASPLANCHNA 64%	ACANTHOCYSTIS 34%
	#2	KERATELLA 22%	NAUPLIUS LARVA 30%
	#3	POLYARTHRA 14%	
ROTIFERS/LITER		36	6
MICROCRUSTACEA/LITER		<1	64
ZOOPLANKTON ABUNDANCE (#/L)		36	125
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			3.8
BOTTOM DISSOLVED OXYGEN (mg/L)		13.0	8.6
BACTERIA (E. coli, #/100 ml)	#1		< 10
	#2		< 10
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): None

CHEMICAL:

Lake: SHAWS POND

Town: NEW DURHAM

	27 January 2000		27 August 1999		
DEPTH (m)	1.5	3.5	1.0		3.0
pH (units)	6.6	6.6	6.8		6.8
A.N.C. (Alkalinity)	10.9	10.0	9.2		9.1
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	< 0.10	< 0.10	0.20		0.20
TOTAL PHOSPHORUS	0.004	0.006	0.006		0.013
CONDUCTIVITY (μ mhos/cm)	58.0	58.8	52.7		52.9
APPARENT COLOR (cpu)	32	36	25		25
MAGNESIUM			0.48		
CALCIUM			4.3		
SODIUM			5.3		
POTASSIUM			< 0.40		
CHLORIDE	8	8	7		7
SULFATE	3	3	2		2
TN : TP			33		15
CALCITE SATURATION INDEX			2.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1999

D.O. S.D. PLANT CHL TOTAL CLASS

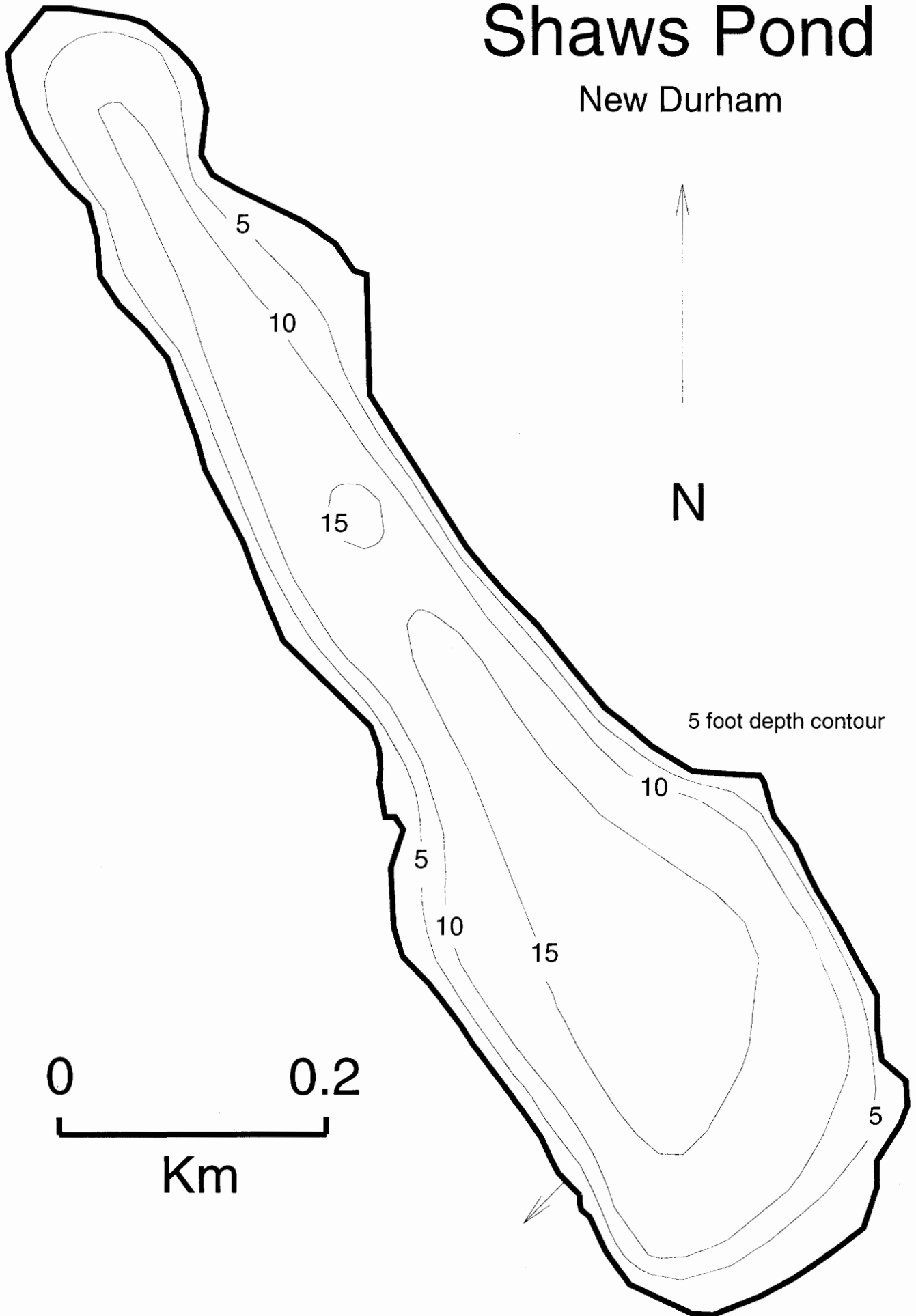
**	2	3	1	6	Meso.
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COMMENTS:

1. This pond was previously surveyed and classified in 1984. There was no change in classification and little change in water quality between the two years.

Shaws Pond

New Durham

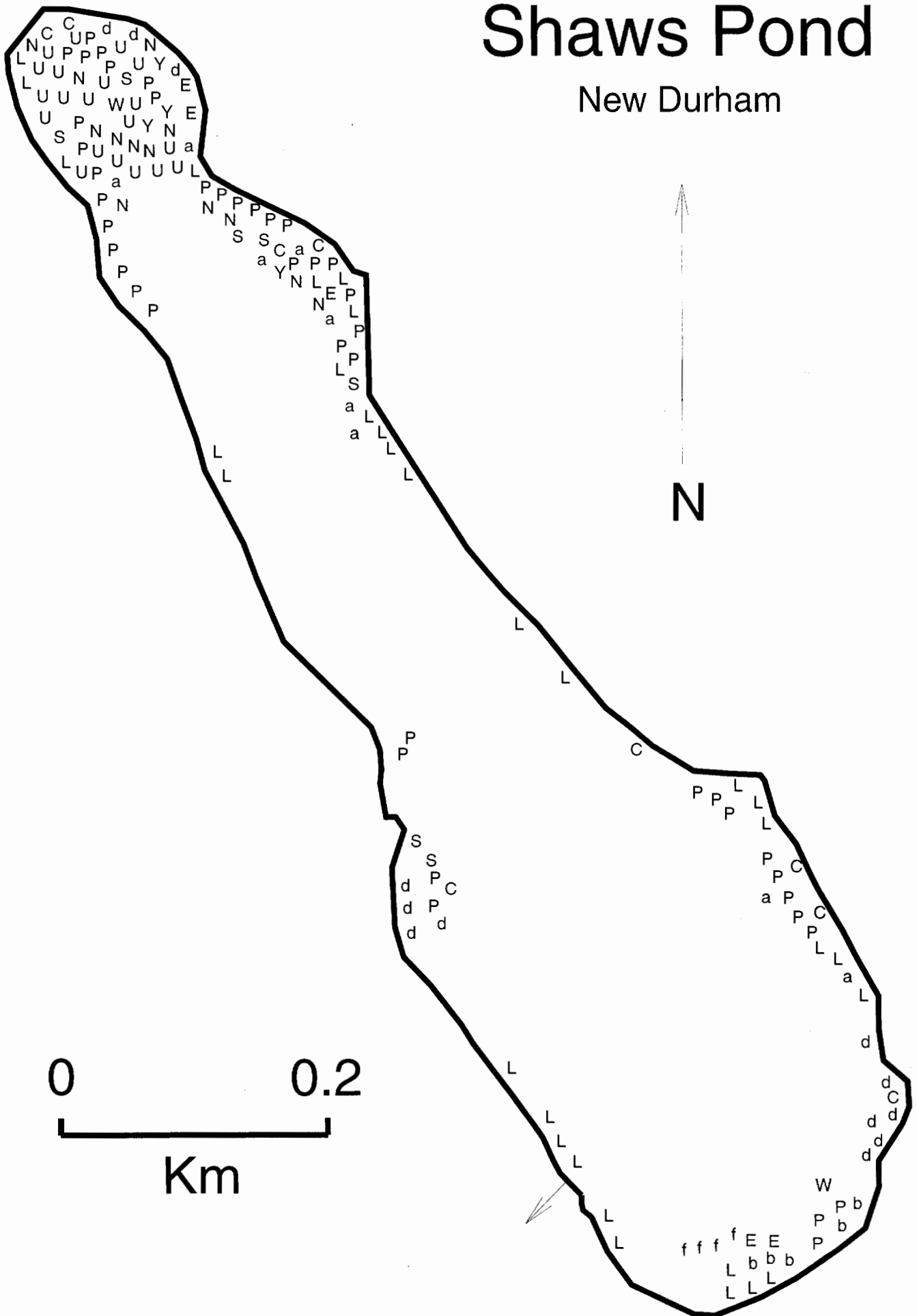


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Shaws Pond

New Durham



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